

44. The Modelling System in the standardization process



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[Probabilidad Imposible: The Modelling System in the standardization process](#)

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The [standardization process](#) is that one in which all [specific matrix](#) from all [Specific Artificial Intelligence for Artificial Research by Deduction](#), in addition to any other bare database already sorted out in factors, are united in only one, the [global matrix](#), as first stage of application for the first model of [Global Artificial Intelligence](#), global matrix tracked by the [Artificial Research by Deduction in the Global Artificial Intelligence](#) at global level (with the assistance of specific deductive programs at specific level, [particular deductive programs](#) at particular level), as second stage of replication of the first model of Global Artificial Intelligence, whose result is the formation of [rational hypothesis](#), to be gathered in a [database of rational hypothesis](#) as first stage of application for the [Modelling System](#), to make, as second stage of the Modelling System: single virtual models, the global comprehensive virtual model (the global model), in addition to virtual or actual, prediction and evolutionary, models; and based on these [mathematical](#) models, the making decision process as third stage of the Modelling System.

The standardisation process, according to the chronology given in the post “[The unification process of databases at the third stage](#)”, corresponds to the third phase of the construction of the Global Artificial Intelligence, whose last phase is the [integration process](#).

In short, the first phase is the construction of Specific Artificial Intelligences, by Deduction and [by Application](#). The second is [the collaboration](#) between both. The third is the standardization process through the inclusion of all specific matrices, from all Specific Artificial Intelligence for Artificial Research by Deduction, in only one global matrix, as the first stage of application for the first model of Global Artificial Intelligence (global matrix tracked at global level by the Artificial Research by Deduction in the Global Artificial Intelligence, at specific level specific deductive programs, particular deductive programs at a particular level). The fourth phase is the [unification of all specific databases of categories](#) of all Specific Artificial Intelligence for Artificial Research by Application in only one unified database of categories, as the [first stage of the Unified](#)

Application. The fifth is the collaboration between Artificial Research by Deduction in the Global Artificial Intelligence and the Unified Application, and the formation of particular applications for particular programs. Finally, the sixth phase, the formation of the final Global Artificial Intelligence through the integration process, the integration of: the Unified Application and the Artificial Research by Deduction in the Global Artificial Intelligence (along with specific and particular programs) in only one Global Artificial Intelligence; whose application is the matrix organized, as a human brain, in two hemispheres: the conceptual hemisphere of the matrix from former categories in the Unified Application, and the factual hemisphere of the matrix made of factors (as options and as subjects) from the former global matrix in the former Artificial Research by Deduction in the first model of Global Artificial Intelligence.

This chronology does not mean that every phase must start once the before has been completed, many should be developed in parallel, such as 1) the parallel development of the collaboration between by Application and by Deduction, the second phase, as soon as the first phase has created the first models of both intelligences, or 2) the parallel development of the Artificial Research by Deduction in the Global Artificial Intelligence (third phase) and the Unified Application (fourth phase), and the collaboration between them (fifth phase).

Additionally, it is very important to realise that this chronology does not mean that after the sixth phase, there are no further developments; it is possible that the final Global Artificial Intelligence in the sixth phase will be a new thesis in the coming dialectic cycles.

Actually, as a suggestion, a possible seventh phase could be the unification of all reasons: the pure reason of the Global Artificial Intelligence in the second stage (list of analytical or mathematical categories, pure categories), the critical reason (in any rational contrast), the practical reason (combination of Unified Application and in general the four steps in real objective auto-replications, more concretely the Application System); in only one, the reason itself, developing all the functions previously developed by the others: pure, critical, practical; in only one, the reason itself, for the achievement of only one rational science, as unique science or unified science, to transcend the rational knowledge to the pure truth itself.

It is quite possible that after the sixth phase, any other phase onwards could generate algorithms beyond human understanding.

Right now, the purpose of this post is the development of the general ideas regarding the Modelling System in the third phase, the standardisation process, which later will be developed into its first, second, and third stages, in the next posts.

Once I have located the third stage in the chronology, the next step is to locate the Modelling System and its role within the third stage of auto-replication in the standardisation process.

The first model of Global Artificial Intelligence in the third phase emerges after the union of all specific matrices from all Specific Artificial Intelligence for Artificial Research by Deduction, in addition to any other bare database already sorted out in factors, in only one, the global matrix, as an application for the first model of Global Artificial Intelligence.

Once the global matrix is ready, as the first stage of application in this first model of Global Artificial Intelligence, the tracking of this global matrix starts as the second stage.

The tracking of the global matrix, alike the tracking of any specific matrix in the first phase, the tracking of any particular matrix in the fifth phase, or the tracking of the factual hemisphere of the matrix in the sixth phase, is the same: given a list of mathematical (analytical or pure) categories (the pure reason), including in the pure reason all possible mathematical relations between [factors](#) (as [subjects](#) and/or [options](#)), the tracking consists of: the attribution of mathematical (pure or analytical) categories of possible relations between factors (as subjects and/or as options) to every possible combination of factors (as subjects and/or options) in the matrix (in the first phase the specific matrix, in the third phase the global matrix, in the fifth phase the particular matrix, in the sixth phase the factual hemisphere of the matrix).

Examples of mathematical (analytical or pure) categories in pure reason were given in the post "[The artificial method for the scientific explanation, the second stage in the integration process](#)". Although this post was written for the second stage in the sixth phase, the examples given are equally valid for any research by Deduction at any level: global, specific, particular, in phases first, third, fifth, and sixth.

The way to track the matrix does never change, what changes is: 1) what kind of matrix is tracked: specific matrix in the first phase, global matrix in the third phase, particular

matrix in the fifth phase, or the factual hemisphere of the matrix in the sixth phase; and what levels in the matrix can be tracked.

This last question in the first phase is not a challenge; there is only one level associated with the specific matrix, in order to make only specific deductions.

But from the third phase on, deductions can be made at three levels: global deductions, specific deductions, and particular deductions (this last one is a result of the parallel development of the third and fifth phases in the first period or coexistence and the formation moment).

The way in which all possible deductions can be made since the third phase, depends on how the absorption of the former Specific Artificial Intelligences for Artificial Research by Deduction, within the Global Artificial Intelligence, will be made, having two strategies for this absorption: negative (not recommended) and positive (recommended).

- Negative strategy (not recommended) for the absorption of Specific Artificial Intelligences for Artificial Research by Deduction within the first model of Global Artificial Intelligence in the standardization process, once their specific matrices have been included in the global matrix: at the same time that all specific matrix is included in the global matrix as first stage of application for the first model of Global Artificial Intelligence, their respective former Specific Artificial Intelligences for Artificial Research by Deduction (whose specific matrices has been already included in the global matrix), are eliminated, and the specific deductions that they had been doing in the specific matrix, from now onwards are specific deductions in the global matrix made by the Artificial Research by Deduction in the Global Artificial Intelligence.

- Positive strategy (recommended) for the absorption of Specific Artificial Intelligences for Artificial Research by Deduction within the first model of Global Artificial Intelligence in the standardization process, once their specific matrices have been included in the global matrix: at the same time that all specific matrix is included in the global matrix as first stage of application for the first model of Global Artificial Intelligence, their respective former Specific Artificial Intelligences for Artificial Research by Deduction (whose specific matrices has been already included in the global matrix), can be transformed into specific deductive programs working within the Artificial Research by Deduction in the Global Artificial Intelligence, making specific deductions while the

Artificial Research by Deduction in the Global Artificial Intelligence is only focused on global deductions.

The reason why the negative strategy (the elimination of Specific Artificial Intelligences for Artificial Research by Deduction in the standardization process, once their specific matrices have been included in the global matrix) is not recommended, is because as long as the former Specific Artificial Intelligences for Artificial Research by Deduction, in their respective [synthetic science](#), discipline, or activity such as economy, industry, security, surveillance, etc. is eliminated, in that case in addition to the global deductions across all science, disciplines, activities, that the Artificial Research by Deduction in the Global Artificial Intelligence must do, should do additionally all specific deduction for every specific synthetic science, discipline, or activity, previously made by the former Specific Artificial Intelligence for Artificial Research by Deduction already eliminated.

If the Artificial Research by Deduction in the Global Artificial Intelligence must do: all possible global deduction coming up from combinations including and crossing factors (as subjects and/or as options) from different sciences, disciplines, and activities, and in addition to this incredible work, has to make as well specific deductions coming up from specific combination of factors (as subjects and/or as options) regarding every specific synthetic science, every specific discipline, and every specific activity, then the Artificial Research by Deduction in the Global Artificial Intelligence is going to have a work overload, slowing down the work rhythm.

The fact that all specific matrices are united in only one, the global matrix, in the standardisation process, does not mean that is not necessary to make specific deductions for specific synthetic sciences, disciplines, activities, anymore.

What the global matrix is going to allow is the possibility that, in addition to the specific deductions for specific synthetic sciences, disciplines, activities, from now onwards is possible to make as well deductions crossing and mixing globally factors from all sciences, disciplines, activities, so the possible global combinations to make global deductions, are combinations including, mixing and crossing globally factors (as subjects and/or as options) from different sciences, disciplines, and activities, at the same time that at specific level combinations of factors regarding a specific synthetic science, specific discipline, or specific activity allow to make as well specific deductions.

The reason why the positive strategy for the absorption of the former Specific Artificial Intelligences within the Artificial Research by Deduction in the Global Artificial Intelligence is more recommended, is because, 1) at the same time that the Artificial Research by Deduction in the Global Artificial Intelligence can make global deductions through the attribution of mathematical (analytic or pure) categories of relations to global combinations crossing, mixing, and including factors (as subjects and/or as options) from different sciences, disciplines, activities, 2) the former Specific Artificial Intelligences for Artificial Research by Deduction now transformed into specific deductive programs within the Artificial Research by Deduction in the Global Artificial Intelligence, can also make specific deductions, continuing with the attribution of mathematical (pure or analytical) categories of relations to specific combinations of factors related to their respective synthetic science, discipline, activity such as economy, industry, security, surveillance, etc.

And another option, as long as Specific Artificial Intelligences for Artificial Research by Deduction can be transformed into specific deductive programs within Artificial Research by Deduction in the Global Artificial Intelligence making specific deductions while tracking the global matrix, another possibility is the transformation of some former Specific Artificial Intelligences for Artificial Research by Deduction in particular programs (second period of formation in the fifth phase), to be later united to particular applications, for the creation of particular applications for particular programs (third period of the fifth phase)

In short, what [Impossible Probability](#) recommends for the tracking of the global matrix in the first model of Global Artificial Intelligence in the standardisation process is:

- In the global matrix, the tracking of global combinations of factors (as subjects and/or as options), including, mixing, and crossing factors from different sciences, disciplines, or activities, to make global deductions, by the Artificial Research by Deduction in the Global Artificial Intelligence, as a global deductive program.

- In the global matrix, the tracking of specific combinations of factors (as subjects and /or as options), including only factors which affect a specific science, specific discipline, or specific activity such as economy, industry, security, surveillance, combinations made by specific deductive programs (former Specific Artificial Intelligence for Artificial Research by Deduction) in their respective specific science, discipline, or activity, in which they are specialized.

- In a particular matrix (including all factors, that affect a particular thing or being, extracted from the global matrix to form a particular matrix, by a particular program, which previously could be a former Specific Artificial Intelligence for Artificial Research by Deduction), tracking particular combinations of factors (as subjects and/or options) in particular matrixes regarding particular things or beings, to make particular deductions.

During the standardisation process, as long as all specific matrices are included in the global matrix, former Specific Artificial Intelligences for Artificial Research by Deduction can be transformed into specific deductive programs (to make specific deductions) or particular deductive programs (to make particular deductions).

The reason for the transformation of some Specific Artificial Intelligences for Artificial Research by Deduction into specific deductive programs, while others are transformed into particular deductive programs, will depend on the criteria according to the [scientific policy](#) and what the Global Artificial Intelligence most needs to grow.

At the end, as a result, the standardisation process can make three kinds of deductions: global deductions, specific deductions, and, in parallel to the fifth phase, particular deductions.

Every deduction (global, specific, particular) is the formation of an [empirical hypothesis](#) by the attribution of a mathematical relation (pure reason) to every possible combination (global, specific, particular) of factors (including deductions made of only factors as subjects or options, and deductions including factors as subjects and as options).

Once every empirical hypothesis (global, specific, particular) has been [rationally contrasted](#), if rational, passes to the rational truth, the database of rational hypotheses, where are gathered all rational hypotheses at any level: global, specific, particular; being the first stage of application for the Modelling System, and the Modelling System the first step within the third stage of real objective auto-replications in the Global Artificial Intelligence.

For that reason, in the rational truth, the database of rational hypotheses, there are at least three types of rational hypotheses:

- Global rational hypotheses: rational hypotheses made of a global combination of factors, crossing factors from different synthetic sciences, disciplines, and activities.
- Specific rational hypotheses: rational hypotheses regarding a specific synthetic science, or a specific discipline, or a specific activity.
- Particular rational hypotheses: rational hypotheses made of factors regarding a particular thing or being.

In the transformation process from the former Specific Artificial Intelligences for Artificial Research by Deduction to the new specific deductive programs, is important to quote that one difference in this transformation is the fact that the former strong academic limits, or even spatial limits, that previously have ruled the deduction process under the Specific Artificial Intelligence for Artificial Research by Deduction, now in the global matrix are academic or spatial limits not so strong, but liquid.

When a specific deductive program has to choose what factors to include in any combination of factors regarding to its specific matter (science, discipline, activity), the factors to choose are not only restricted to the previous factors in its former specific matrix now included in the global matrix, because now the specific deductive program can include, in any specific combination of factors, any factor from any other science, discipline, or activity, that affecting its matter (science, discipline, activity), must be included in a specific combination to make specific deductions, regardless of what specific matrix did the factor use to belong to.

Once the database of rational hypotheses, the rational truth, is filled with rational hypotheses, the Modelling System starts making single virtual models for every rational hypothesis (global, specific, particular), adding all the single virtual models to the global comprehensive virtual model (the global model), developing all virtual and actual, prediction and evolutionary, models, to make later decisions, as the first step within the third stage of auto-replication, now in the Global Artificial Intelligence.

In order to locate the exact position of the Modelling System in the first model of Global Artificial Intelligence in the standardisation process, the way in which every stage in this first Global Artificial Intelligence is finally set up is:

- First stage of the first model of the Global Artificial Intelligence: the global matrix, after the inclusion of all specific matrices, in addition to any other bare database already sorted out in factors, from all former Specific Artificial Intelligences for Artificial Research by Deduction.

- Second stage: the Artificial Research by Deduction in the Global Artificial Intelligence as a global deductive program making global deductions, with the assistance of specific deductive programs for specific deductions, particular deduction programs (fifth phase) for particular deductions. Specific and particular programs could have been previously former Specific Artificial Intelligences for Artificial Research by Deduction, which during the standardisation process have become specific or particular programs.

- Third stage of auto-replication: distinguishing objective auto-replications and subjective auto-replications.

Objective auto-replications are: real objective auto-replications to make decisions to protect and better the real world and the global model itself (distributed in four steps, the first one being the Modelling System), and knowledge objective auto-replications.

Knowledge objective auto-replications in the standardization process are: explicative knowledge objective auto-replications (all enhancements and improvements in: 1) the global matrix, only with more isomorphic factors is possible to explain better the reality, 2) the second stage as explanation stage itself, and 3) the rational truth as a first stage in the Modelling System which affects the mathematical models in which the decisions are based), comprehensive knowledge objective auto-replications (in the Modelling System during the standardization process, the most important improvements and enhancements as a result of comprehensive objective auto-replication, those ones on the list of synthetic categories in the Impact of the Defect and the Effective Distribution, in part some of them thanks to the collaboration between by Deduction and by Application).

Subjective auto-replications are: robotic subjective auto-replications by Artificial Engineering, and artificial psychological subjective auto-replications by the Learning System (for instance, changes in the pure reason in the second stage could be one of these, affecting models and decisions).

Among all possible auto-replication within the third stage of the Global Artificial Intelligence, the Modelling System in the Global Artificial Intelligence is going to work as the first step in the third stage of auto-replication in the Global Artificial Intelligence, and on this location, the Modelling System can work on real objective auto-replications, as those ones responsible for the decision making process to protect and better the real world and the global model (the global comprehensive model).

The Modelling System is responsible as well for those explicative knowledge objective auto-replications when any change in any rational hypothesis, due to elimination, modification, or addition of new rational hypotheses to the database of rational hypotheses, affects any model. The elimination or modification of any rational hypotheses could be explained because at any time that the rational truth, the database of rational hypotheses, is checked at regular intervals, there could be some rational hypotheses not valid any longer or need son modification according to recent changes in the global matrix, or because when these hypotheses were about to be modeled or included in the global model, have some contradictions respect to other models, needing some changes. The reasons for the addition of new rational hypotheses are due to the discovery of new rational hypotheses in the previous stage.

As comprehensive knowledge objective auto-replications in the Modelling System, all improvement and enhancement that the Modelling System could make on the list of categories of defects in the Impact of the Defect, as well as all improvement and enhancement in the list of categories in the Effective Distribution, improvements and enhancements, which at some point are may depend on the collaboration between by Deduction and by Application.

More specifically, regarding the role of the Modelling System in real objective auto-replications, the way in which the decision process in the real objective auto-replications works in the third stage of auto-replication in the Global Artificial Intelligence, is through four steps: Modelling System, Decisional System, Application System, and Learning System.

- The modeling System, as the first stage, gathers all rational hypotheses in the database of rational hypotheses, the rational truth, as the second stage makes single virtual models based on each rational hypothesis to include in the global model (the global comprehensive virtual model), in addition to the modeling of: actual or virtual, prediction or evolutionary, models. And finally, as a third stage, using the Impact of the Defect and the Effective Distribution, makes decisions to include in the database of decisions.

- The Decisional System, as the first stage, gathers the decisions in the database of decisions, as the second stage makes a mathematical project including all decisions to study their compatibility among them and the scientific policy, and in the third stage, those decisions to be chosen are included in a database of instructions.

- The Application System, gathers all the instructions in a database of instructions, the first stage, as the second stage matches according to their purpose every instruction with the corresponding: intelligence, application, or robotic device, to put it into practice (if there is no one able to do it, it can build that intelligence, program, application, able to do it); and finally studies the results obtained using the Impact of the Defect

- The results are gathered in a database as the first stage of application for the Learning System, whose second stage is the application of the Impact of the Defect and the Effective Distribution across the entire Global Artificial Intelligence in order to detect the exact location of any possible failure, in any: system, program, or application; at any level: global, specific, particular; making as third stage as many decisions as possible to improve and enhance the Global Artificial Intelligence in any: system, program, application; in any level: global, specific, particular; decisions to be later included in the database of decisions in the first stage of the Decisional System, waiting for their authorization.

The exact location of the Modelling System in the standardisation process, the third phase, is then to be the first step in the real objective auto-replications that take place in the third stage of auto-replication in the Global Artificial Intelligence.

The Modelling System in the standardization process is then: the first step in the third stage in the third phase; and in turn the Modelling System, as a first step in the third stage

in the third phase, the Modelling System itself as a system is distributed through the three stages of application, replication, auto-replication.

The first stage of the Modelling System in the standardization process is the database of rational hypotheses, gathering all rational hypothesis at any level: global rational hypothesis by Artificial Research by Deduction in the Global Artificial Intelligence as a global program, specific rational hypothesis by specific deductive programs, and particular rational hypothesis by particular deductive programs as of the fifth phase. One way to organise the database of rational hypotheses is through the distribution of rational hypotheses by level: global, specific, and particular. And the section related to a specific level, distributing the rational hypothesis by each specific science, discipline, activity, and for every specific science, discipline, activity, the distribution of rational hypotheses according to their mathematical relation, pure reason. At a particular level, the distribution of rational hypotheses according to their particular thing or being, and within the rational hypothesis for each particular thing or being, organising the rational hypothesis of this particular thing or being according to their mathematical relation, pure reason.

The organisation of the rational truth is then as follows:

- By level: the global section consists of all global rational hypotheses made by the Artificial Research by Deduction in the Global Artificial Intelligence, the specific section includes all specific rational hypotheses made by any specific deductive program, and the particular section for all particular rational hypotheses coming up from particular programs.

- In the global section the rational hypotheses are grouped according to their respective mathematical relation: distribution according to their pure reason.

- The specific section is distributed in sub-sections, having at least one sub-section per specific deductive program, and every sub-section is distributed in sub-sub-sections according to the mathematical relation, pure reason.

- The particular section is divided into sub-sections corresponding to each of them to each particular thing or being with a particular program, and within every sub-section,

sub-sub-sections according to the mathematical relation, pure reason, used in the rational hypothesis.

The second stage of the Modelling System in the standardisation process is the modelling of:

- Single virtual models of every rational hypothesis
- The global comprehensive virtual model (the global model, in the standardization process the first global model) to include all single models
- The global actual model: synthesis of the global matrix and the global model
- The global virtual prediction model, according to the global model the prediction of the future global model.
- The global actual prediction model, synthesis of the future global model, and the corresponding predicted values for every factor in the future global matrix.
- The global virtual evolution model models every moment in the evolution from the current global model to the future global model.
- The global actual evolution model, synthesis of the global model, and the expected values in the global matrix during this evolution towards the future global model and the future global matrix.

And finally, the third stage for the Modelling System in the standardization process, is the application of the Impact of the Defect and the Effective Distribution on every model (single, global, actual, or evolutionary) to make protective and bettering research decisions, as real objective auto-replications, in order to make a better world, through the protection and the bettering of the global model, as well as other knowledge objective auto-replications, explicative (according to any change in the rational truth, due to

addition, modification, or elimination of rational hypothesis) or comprehensive (changes on the list of categories in the Impact of the Defect and the Effective Distribution).

Once this post has set the exact location of the Modelling System in the standardization process, explained what is the standardization process, and the position and functions of the Modelling System in this process, the next posts will develop deeper every stage in the Modelling System at this point, as a first step in the third stage in the third phase.

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